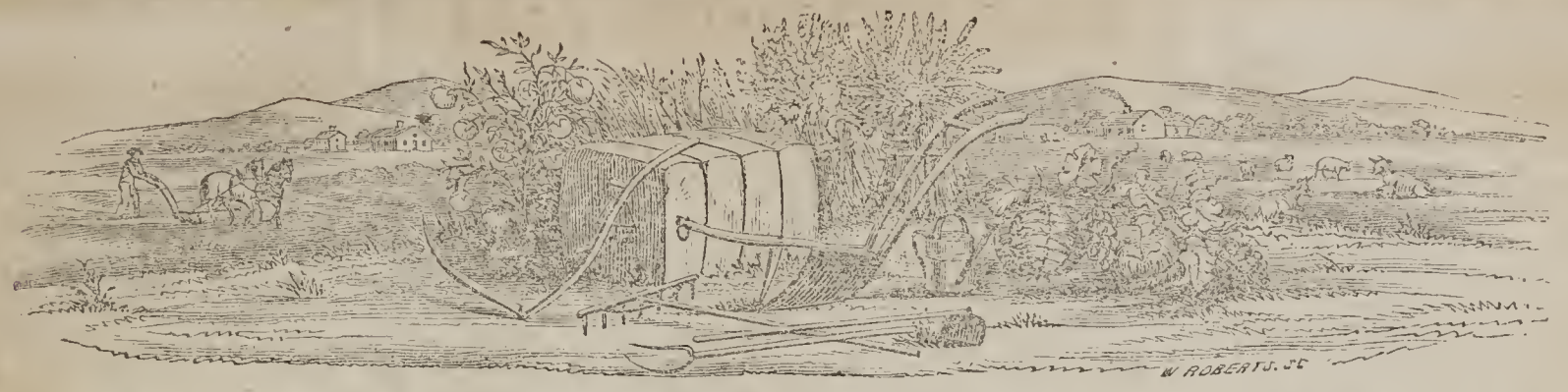

FARMER AND PLANTER.

DEVOTED TO AGRICULTURE, HORTICULTURE, MECHANICS, DOMESTIC AND RURAL ECONOMY.

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The Farmer and Planter

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Curing Meat, &c.

Meat intended for salting in winter should hang a few days to make it tender; but in summer it may be salted as soon as killed. It should then be wiped dry, and the kernels and pipes should be taken out, and the holes should be filled up with salt. The art of salting meat is to rub the salt in thoroughly and evenly; first rubbing in half the salt, and in a day or two the remainder. Bay salt gives meat a sweeter flavor than any other salt. Sugar is likewise an excellent article for curing meat, producing mellowness and richness. By some sugar is used to rub meat previous to salting. Saltpetre dries up the meat too fast, so that it is now seldom used but for giving a red color, in the proportion of an ounce and the same quantity of sugar to every pound of salt. The meat should be kept covered with the brine, and turned and rubbed daily. In frosty weather it is recommended to warm the salt, in order to ensure its penetrating and mixing with the juice of the meat.

To Boil a Tongue.

Soak it all night before using, and be careful to wash out the salt, which is put into various crevices to preserve it. Boil it in plenty of water from two hours and a half to three hours. Remove the skin before sending it to the table, and garnish with parsley.

Manures.---No. 9.

Their Uses, History, Modes of Preparation, Comparative Value, Rationale of their Causes of Action, Etc. Etc.

BY PROF. J. J. MAPES.

Farm-Yard Manure continued.—We would refer our readers for further information on the subject of farm-yard manures, to the *Quarterly Journal of Agriculture*, vol. iii., p. 483. This article gives at length the analysis of straw from different soils, and recommends its use as manure to such soils as require exchange of materials. The fact, however, would only be availed of by those who manure with great acuracy and economy, and could only be useful to those who can make analysis of both soil and straw. In the same journal, vol. ix. p. 299, will be found an excellent article on the impropriety of permitting barn and ferm-yards to be flooded with water, and thus to lose the soluble portions of manures.

No error is more common than to suppose that no part of the soluble portion of manures is lost if the farm-yard be underlayed by clay, for in addition to the loss by evaporation, large portions are lost by being absorbed by the clay, and afterwards lost by evaporation, when the upper coating of litter has been removed.

An excellent article on the use of long manures in their freshest state, may be found in the *Quarterly Journal of Agrirulture*, vol. vii., p. 584, and vol. ix., p. 597.

The following experiments to ascertain the comparative value of manures on barley, was made by Mr. W. Sim in Rossshire. The soil a good deep loam on a gravelly sub-soil.—*Farmer's Encyclopedia.*

Kind of manure.	Quantity per Scotch acre, equal to 1¼ English.	Produce of grain per acre.			Weight per bushel.	Straw per acre, in stones of 16 lbs.	
		qrs.	bls.	ps.	lbs.	stones.	lbs.
F. Yard.....	18 d'bl. loads....	8	1	1	53	226	8
R'pe dust.....	18 cwt.....	7	3	0	51½	322	8
Bone do.....	10 bushels.....	7	5	2	53	211	14
Ni. of So.....	140 lbs.....	7	5	0	52½	213	0
St. Petre.....	140 lbs.....	6	2	0	52½	186	0

It is sometimes convenient to know the weight of the several manures by ascertaining the measure.

	cwt.	qrs.	lbs.
A cubic yard of garden mould,	13	3	26
" " " of water,.....	5	6	7
" " " of compost of dung, with weeds and lime, which had been all turned over 9 months,	14	6	5
" " ", of new dung,....	9	3	18
" " " of leaves and sea-weed.....	9	6	7

[*Farmer's Mag., vol, ix., p. 102.*

Our text book *(Johnson on Manures.)* says:—"It is hardly possible, in reflecting upon the important use of organic manures in the production of our food, to avoid being struck with the wisdom and the beneficence of the Creator, in thus making decomposing, noxious animal remains the nutriment of vegetation, and rendering the dissolving animal substances which the grass formed, its food. The interchange of elements, too, so essential to each, is therefore incessant; the death and decomposition of the one, ever imparting fresh life to the other. The same gas also which the living vegetable emits, is the vital air of the animal: and that which the latter exhales, is absorbed with avidity by the roots and leaves of plants, and, by some of the mystic processes of vegetation, transmuted into new forms of matter, at once useful and delightful. Thus, the very elements, which are at one moment constituting the noxious products of putrefaction, are, in the next, existing in the exquisite aroma of the flower. These are facts which, too apparent to escape our observation, must excite our admiration; and the rapidity and advantage to us of the change produced, cannot fail to call forth the curiosity and gratitude.

Johnson gives the following table as a guide, in ascertaining the distance and size of the heaps, proper for expending a given number of loads per acre, or *vice versa*. In the left hand column is placed the distance of the rows and of the heaps in each row, (distance between heaps in each direction,) and at the top of the columns will be noticed the number of heaps intended to be made of each load; the point where the two meet gives the number of loads per acre which will be required for that purpose.

Example 1.—Required, the number of loads necessary to manure an acre of ground, dividing each load into six heaps, and placing them at a distance of 4½ yards from each other? The answer by the table is 39¾.

Example 2.—A farmer has a field containing 5½ acres, over which he wishes to spread 82 loads of dung. Now 82 divided by 5½, gives 15 loads per acre; and by referring to the table, it will be seen that the desired object may be accomplished by making 4 heaps of a load, and placing them 9 yards apart, or by 9 heaps at 6 yards, as may be thought advisable

DISTANCE OF THE HEAPS.	NUMBER OF HEAPS IN A LOAD.									
	1	2	3	4	5	6	7	8	9	10
3 yards.....	538	269	179	134	108	89½	77	67	60	54
3½ do.....	395	168	132	90	79	66	56½	49½	44	39½
4 do.....	303	151	101	75½	60⅓	50½	43¼	37¾	33½	30¼
4½ do.....	239	120	79½	60	47¾	39¾	34¼	30	26½	24
5 do.....	194	97	64½	48⅓	38¾	32¼	27¾	24¼	21½	19¼
5½ do.....	160	90	53½	40	32	26¾	22¾	20	17¾	16
6 do.....	131	67	44¾	33½	27	22½	19¼	16¾	15	13½
6½ do.....	115	57½	38¼	28¾	23	19	16½	14¾	12¾	11½
7 do.....	99	49½	33	24¾	19¾	16½	14	12¼	11	10
7½ do.....	86	43	28½	21⅓	17¼	14¼	12¼	10¾	9½	8½
8 do.....	75½	37¾	25¼	19	15¾	12½	10¾	9½	8½	7½
8½ do.....	67	43½	22¼	16¾	13½	11¾	9½	8½	7½	6¾
9 do.....	60	30	20	15	12	10	8½	7½	6¾	6
9½ do.....	53½	26¾	18	13½	10¾	9	7¾	6¾	6	5¼
10 do.....	48½	24¼	16¼	12	9¾	8	7	6	5½	4¾

Manures are often applied to land without any regularity being made of the quantity, and thus the farmer is unable to judge of their comparative usefulness or cost. We often hear farmers say they have tried bone dust, &c. &c., and that they do not like it as well as some other manure; but in many cases they cannot tell what quantity they used per acre, and consequently their opinions are valueless. By the use of the above table, farmers would soon be able to judge correctly of the comparative value of manures, and thus render their experiments of one year correct data for the next year's operations. Our next number will be devoted to *night soil*, its value and use, as compared with other manures,—Ed.

Bitter Rot in Apples.

A subscriber in Bedford county, Pa., states that the apple trees are attacked with the *bitter rot*, and asks for a remedy. We have no experience ourself in this disease, but copy the following from the 2d volume of the "*Memoirs of the Philadelphia Society for Promoting Agriculture*," page 83. The article is from the pen of the President, the late Judge Peters. After stating that his trees had been subjected to the disease for many years, and making some suggestions as to the cause of the disease, and the probability of a cure being effected by pruning and removal to dry airy situations, he remarks:—

"But about this time last year two very intelligent gentlemen from near Boston, lodged at my house, and among other topics of conversation, those of orchards and the *bitter-rot* were introduced—one of them informed me, that he had discovered "the true cause of the bitter-rot, and a safe and easy mode to prevent it; that it was occasioned by a certain kind of worm on the body of the tree, between the wood and the bark; and that a safe and easy mode was to peel all the bark off the bodies of the trees, on the longest day in the year; which he said he had done: that it did not kill or injure the trees, but that they grew much better for it; and that it effectually prevented the bitter-rot."

"I was surprised at this account, as I had no idea of a tree living with the bark peeled off, in the hot dry season, yet they appeared worthy of credit.

"Therefore I resolved to sacrifice one tree to the experiment, and on the 20th day of last June, about one o'clock, in hot dry weather, I peeled a tree on which there were apples, and had been subject to the bitter-rot. I took all the bark off from the roots up among the limbs, fully expecting in two days to see it withered and dead,—between the wood and bark I found many of those worms, and discovered that there was a pulp or *glutinous substance* which had grown that year between the wood and bark, and adhered to the wood. I went faithfully every day to see my tree *wither*, but was disappointed; it appeared to grow and thrive the better, and the glutinous substance to harden, and has since grown into a *perfect bark*, the apples hung on as on the other trees, and no *bitter*-rot on them as had been some years before."

Cole, in his "*American Fruit Book*," in speaking of *disbarking* trees, remarks:—

"Apple trees are improved by stripping the bark from their trunks, about the time of the *longest days*. In this case the trees should be put into a thrifty state, and the bark taken off with great care, so as not to disturb the *cambium* between the bark and wood, which will soon form a fresh healthy bark. It is well to screen the trunk from the sun a few days."

We know nothing of this disease, personally, but as our correspondent says that his "trees are young, and stand in a stiff red clay soil," we would advise him to form a compost early next spring, composed of 3 parts well rotted manure and 5 parts woods-mould and leaves, or marsh mud, so as to give to every acre of his orchard about 10 loads of the compost, which should be ploughed in a few inches, say three or four, taking care not to go so deep as to injure the roots, then to broadcast over the ground at the rate of 4 bushels of *bone-dust*, 2 bushels of *salt*, 29 bushels of *ashes*, and 1 bushel of *plaster* per acre, and finish by harrowing. These applications will put his trees in a "*thrifty state*," and prepare them for the process of *disbarking*, should he determine to undertake that operation. As the *remedy* appears to be a severe one, our advice would be, that he should try it only on a few trees before he tests its efficacy, as the sacrifice of an orchard is too serious a matter to be undertaken rashly.

☞Should any of our readers have any personal experience in the *nature*, *cause*, and *cure* of this disease, we should be gratified to hear from them upon the subject. —*Farm Journal.*

To make good Light Corn Bread.—Take one egg, a little salt, a pint of new buttermilk; and as much yellow corn meal as will make it into a very stiff batter; have a teaspoonful of soda disolved in a little hot water, and just as you are ready to bake stir it in your batter. Have whatever you bake it in well greased, and tolerably hot; bake quickly, and it will be delicious.—*Balt. Sun.*

As daylight can be seen through the smallest holes, so do the most trifling things show a person's character.

Poisons and Antidotes.

It not unfrequently happens that serious and distressing results are occasioned by the accidental employment of poison, and it occurred to us that we might possibly do a service to some of our readers by presenting them with a brief and compendious list of the more common poisons, and the remedies for them, most likely to be close at hand.

Acids.—These cause great heat, and sensation of burning pain, from the mouth down to the stomach. Remedies, magnesia, soda, pearlash or soap, dissolved in water; then use the stomach pump or emetics.

Alkalies.—Best remedy is vinegar.

Ammonia.—Remedy, lemon juice or vinegar, afterwards milk and water or flax seed tea.

Alcohol.—First cleanse out the stomach by an emetic, then dash cold water on the head, and give ammonia (spirits of hartshorn.)

Arsenic.—Remedies in the first place evacuate the stomach, then give the white of eggs, lime water or chalk and water, charcoal and the preparations of iron, particularly hydrate.

Lead.—White lead and sugar of lead. Remedies, alum, cathartic, such as castor oil and epsom salts, especially.

Charcoal.—In poison by carbonic gas, remove the patient to open air, dash cold water on the head and body, and stimulate nostrils and lungs by hartshorn, at the same time rubbing the chest briskly.

Corrosive Sublimate.—Give white of eggs freely mixed with water, or give wheat flour and water, or soap and water freely.

Creosote.—White of eggs and the emetics.

Belladona, or Night Henbane.—Give emetics, and then plenty of vinegar and water or lemonade.

Mushrooms, when poisonous.—Give emetics, and then plenty of vinegar and water, with a dose of ether if handy.

Nitrate of Silver., (lunar caustic,) give a strong solution of common salt and then emetics.

Opium.—First give a strong emetic of mustard and water, then strong coffee and acid drinks, dash cold water on the head.

Laudanum.—Same as opium.

Nux Vomica.—First emetics, then brandy.

Oxalic Acid.—Frequently mistaken for epsom salts. Remedies, chalk, magnesia, or soap and water freely, then emetics.

Nitrate of Potash, or Saltpetre—Give emetics, then copious draughts of flax-seed tea, milk and water, and other soothing drinks.

Prussic Acid.—When there is time, administer chlorine in the shape of soda or lime. Hot brandy and water. Hartshorn and turpentine also useful.

Snake Bites, &c.—Apply immediately strong hartshorn, and take it internally, also give sweet oil and stimulants freely—apply a ligature tight above the part bitten, and then apply a cupping glass.

Tartar Emetic.—Give large doses of tea made of galls, Peruvian bark, or white oak bark.

Tobacco.—First emetic, then stringent tea, then stimulants.

Verdigris.—Plenty of white of egg and water.

White Vitrol.—Give the patient plenty of milk and water.

In almost all cases of poisoning, emetics are highly useful, and of those, one of the very best, because most prompt and ready, is the common mustard flour or powder, a teaspoonful of which, stirred up in warm water may be given every five or ten minutes, until free vomiting can be obtained.

Emetics and warm demulcent drinks, such as milk and water, flax seed or slippery elm tea, chalk water, &c., should be administered without delay. The subsequent management of the case will of course be left to a physician.—*Hartford Times.*

Advantages of Fairs—Improvements—Draining.

Extract of an address delivered at the Ohio State Fair, at Cleveland, by Professor J. J. Mapes, editor of the Working Farmer, consulting agriculturist, etc., etc.:

To farmers, the benefits arising from fairs are incalculable; farmers are not a migratory race; their vocations require them at home, and therefore improvements which occur in one township or county, may remain unknown for a century or more, to adjoining counties. There is scarcely a state in the Union, in which one or more farmers have not succeeded in producing one hundred bushels of shelled corn per acre, and still millions of acres of similar soils continue to be improperly worked and to produce forty bushels, or less, per acre. The fairs and the press alone can remedy this evil. By visiting fairs farmers are brought in contact with farmers, an interchange of facts occur, improved specimens of crops, of stock, etc., are seen, and each individual returns home emulated to surpass his neighbor.

Seeds undergo hybridation and deterioration of quality, unless occasionally moved to a new locality. At fairs interchanges of seeds occur, scions, grafts, and cuttings are exchanged, and any new fruit seen by the horticulturist induces its introduction into some new district. Addresses are delivered occasionally to the advantage of the listners, new implements are invented, and these, if of approved kinds, are introduced for general use. Labor-saving machinery does much to the advantage of the farmer; indeed, it often causes a difference of profit equal to that required to change a losing into a gaining business.

In relation to the improvements in agriculture, which have transpired within the last few years, the speaker stated that they were greater than during all previous time; that the iron plowshare was introduced but eighty years ago, and then in so rude a shape, that ten plowmen of its time, with a corresponding number of teams, would be required to perform the labor now readily performed by one. As to the importance of agriculture generally, he observed that a thousand millions of human beings were supported by it; that nine-tenths of all the available capital in the world, was engaged in its exercise; that despite the highly vaunted powers of the merchant, he was but the factor or broker of the farmer, and the success of his agency was entirely dependent upon the amount of agricultural product. Our Corn crop of 1850, was estimated at 600,000,000 of bushels, worth at the export value of the year, $300,000,000; and this only one of several crops, nearly or quite equal to it in value. So great is the sum total, that a saving of the half of one per cent. would be greater than the present income of the government from duties on imports, sales of public lands, etc.

The two greatest agricultural improvements of the age are under-draining and subsoil plowing. Draining can be rendered a source of great profit; wet lands can not be tilled; the mechanical disintegration, arising from plowing such lands, remains but for a short time; soil when wetted to saturation will settle more solidly after the lubrication of its ultimate particles by water than from any known means of mechanical compression; soluble manures are wasted in subsoils; the chemical changes dependent upon the

free and frequent circulation of the atmosphere are arrested; indeed moist soils are not arable until properly under-drained, nor are all the advantages arising from the use of under-drains dependent upon getting rid of an exeess of water; the very hill tops are benefited by sueh treatment, and this benefit will be more fully illustrated when discussing the advantages of subsoil plowing. * * *

The next most important improvement is the use of the subsoil plow. Wet lands are not improved by subsoiling until after having been under-drained. The subsoil plow does not turn over the soil like a surface plow; it follows the surfaee plow, and is propelled by a sepa rate team, the beam lying on the bottom of the surface furrow, and disintegrates without elevating the subsoil.

The admission of atmosphere freely circulating through this subsoil, secures the chemical ehanges dependent upon its presence, and enables the surfaee plowing to be gradually deepened; but this is not all the benefits arising from subsoil plowing. The roots are permitted to pass down and receive the constitnents of plants resident in the subsoil, and to earry them to the surface to complete the vegetable organism. In times of drought the roots may pass down for moisture, and in times of exeessive rains part of the roots at least will not be drowned out.

The greatest benefit, however, is that thoroughly under-drained and subsoiled land never suffers from drought. The reason is obvious, and may be thus explained: You will perceive the pitcher in front of me is covered, on its outside, with drops of water. These, you will readily understand, could not have passed through the pitcher. But as the temperature of the pitcher is eolder than that of the surrounding atmosphere, it has condensed upon its surface the moisture of the atmosphere; for in the hottest day in summer, the absence of moisture from the soil merely goes to prove its existenee in the atmosphere, and when the heated air containing moisture passes through under-drains, or down into subsoil cuts, it deposits its moisture upon the cold surfaces of the partieles of the subsoils, and thus proteets the roots from suffering by drought. Corn never rolls its leaves on thoroughly drained and subsoiled lands.

Every man loves justice at another man's house, few care for it at their own.

The Seed Trade.

Our seed dealers, or at least some of them, are rapidly learning English practiees, and it has already beeome diffieult to find pure seed of the better class of garden vegetables, and even the grass seeds are often sold of mixed and very inferior qualities. There are doubtless some dealers who pursue an honorable course, but hundreds of wagons are now traversing the country, selling seeds of inferior qualities. The market gardeners near our large cities seldom or never buy seeds of the large seed dealers; they are compelled to purchase from each other, each raising some one or two kinds, and making the neeessary exchanges. Late Bergen Cabbage seed is seldom sold by market gardeners for less than $8 per pound, still you may buy seed purporting to be the true Late Bergen Cabbage, at $2 per pound, or even less; but as no grower requires but a few ounces of this seed, it is certainly better to pay the large price to obtain the pure article. A seed dealer in Newark is now selling a bean which he assures his customers has been lately imported from Lima, and is the true Lima Bean. It is flat, with its two sides parallel throughout, and is not a profitable sort. The Lima Bean of the true kind, whether grown in Lima or elsewhere, is short, very thick, and with a deep dent in each side, and none other should be grown. We have several times been tempted to buy seeds from large dealers, and have nearly as often found ourselves deceived. In some instances they were not true to the label, in others new and old seeds were mixed together, and in many instanees they woald not germinate at all. We imported last year from England, under the cover of a popular name as a seed dealer, a quantity of early sorts of Cabbage seeds, and have now several bags on hand whieh are worthless.—*Working Farmer.*

From the Newberry Sentinel.

REPORT

Read before the Newberry Agricultural Society at its Anniversary meeting, held July 28th, 1852.

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CULTURE OF INDIAN CORN.

It must be apparent to every one that the aggregate value of the corn crop is immense to our country; and as almost every cultivator of the soil, throughout its varied elimate, and on all its variety of soils, is a grower of this erop, to a greater or less extent, it becomes a matter of importance that it should be managed to the best advantage. Your Committee know of no better way to arrive at the desired result than the practical experience of successful corn-growers, made publie by reports to Agricultural Societies, or through the columns of the agrieultural press. We may learn something from one another; indeed, we can hardly meet any man, however ignorant, that has not a way of his own of doing something, from which we may obtain a new and profitable idea.

Your Committee do not expeet to add any thing new in information upon this subject, which has been so often and so ably handled by others before them, but simply to show by what proeess others have been suecessful in raising mueh larger crops of corn to the acre than would be considered an average yield, in this section, at least. Mueh depends on the soil. All intelligent farmers know that a deep, rich, dry and warm soil is the most suitable for corn, and by manuring and deep plowing moist soils may be made so: but they are not so unanimous in the belief of deep plowing for corn, beeause good crops are occasionally grown on rieh soils, and favorable seasons, with shallow plowing.

There are few orops which show the effects of skilful eultivation more strongly than that of corn; and this marked improvement should induce the farmer, instead of adding to his number of acres in corn, to adopt that course whieh will give him the greatest erops; leaving the surplus acres to other uses. If a man, by good eulture, can obtain from ten acres of land the same crop it requires twenty to give, then prepare the land so as to obtain the greatest amount. That there are thousands of acres that now do not yield more than from four to six bushels of eorn to the aere, that would with thoro' eulture yield from twenty to twenty-five, none acquainted with our agriculture can doubt. But it may be said, "if I employ all my labor and manure on ten aeres, the remainder of my field must suffer."

The answer is easy. Why eultivate twenty, when you can get the same quantity from ten? and will rest from cropping be more injurious to the soil than the exhausting proeess of cropping without manuring? Why spend the labor and the manure that applied to ten acres would give more corn than if spread over thirty acres; let it be remembered, too, that a piece of land onee thoroughly fitted to produce a sueeession of good crops, which, in all probability would more than

repay in their extra expense incurred for the corn. The selection of the soil and preparing it for the corn crop is of great importance.—If you have an old tough meadow or stubble land that you design for corn, plow it in in November or December, just before the ground freezes up. Lay the ground over smooth, with the Mears & Prouty's Eagle, No. 2 plow, to the depth of eight inches, following with the subsoil plow, going down six or eight inches lower; thus breaking and loosening the soil thoroughly for from sixteen to eighteen inches. Then make smooth with the roller or harrow, and let it lie till spring.—When sufficiently dry, in spring, harrow with a fine tooth harrow. Then if you have a good lot of compost manure, give a top dressing, and plow it in with a shallow furrow, leaving the old sward undistusbed.

Deep and *thorough* plowing is the first step in corn culture, as it best secures the crop against injury from parching dronght as well as excessive rains, and furnishes a wider range for the roots to seek their nourishment. It is also important to manure well and properly. The value of the barn-yard manure to corn, may be inferred from the fact that even on some of the fertile lands of the West, already too rich for other cereal crops, the corn crop is benefitted by it, and it is the only grain crop to which it can be applied there with profit. For any ground on which it is proper to raise Indian corn, your Committee is of opinion that level cultivation, except on very moist soils, is decidedly best. It exposes less serfaec to be dried by the sun aud air, more readily receives and retains moisture, permits the extension of the roots over the whole soil, by which the plant is better nourished, and better strengthened against the force of the winds.

When ground is thrown up into sharp ridges, as is often done by the plow, many of the horizontal roots are scorched by the sun, and are neeessarily so short as to afford the plant but little support as braces. Corn cultivated on the level system, if the soil is deeply tilled, often keeps green, whilst that on ridges is dried up.

Your Committee is well aware the use of harrow and cultivator is but little known to our farmers, in eultivating this crop. But in most of the best corn growing States North, they, together with the hoe, are almost the only implements used, and their average yield is thirty to forty bushels per aere. True, elimate adds something to their product, but thorough cultivation much more.

Whoever would be highiy successful in growing Indian corn, in a climate like that of ours, must select such soil, situation, and give such treatment, as will induce a vigorous and rapid growth from the time of planting until the grain is perfected. Young plants, like young animals, in order to grow rapidly, should not only have an abundant supply of food, but food suited to their age. Hence the benefit of applying a portion of well rotted manure or compost directly to the hill at the time of planting. All long and unfermented manures should be spread on broadcast and well ploughed under. As regards time of planting, the condition of the soil, as to warmth and moisture, and general forwardness of vegetation, must regulate, From the variation of the seasons, diversity of soils, &c., it is obvious that no particular day can be fixed for this work. The rule laid down by the Indians—from whom we first obtained and learned the uses of this valuable essential –was to plant when the "leaves of the white oak had so far advanced as to show the form of a crow's foot." The ground has then acquired a degree of warmth, germination is quick, and the growth rapid. The earlier, however, all things admitting, the better.

MODE OF PLANTING.

In this there are various opinions. The distance between the rows or hills, number of stalks to the hill, &c., must be determined prineipally by the charaeter of the soil, variety of corn planted, &e. If planted in hills put four or five kernels in each, so as to guard against casualties. The different kinds require space according to the size and height to which they are inclined to grow. The smaller the kind, the closer may be the planting. If planted thickly, considerable advantage will be derived by allowing the greatest spaee of rows running north and south, as free access to the light and heat of the sun is thus afforded. Good distance, however, in this latitude, is the surest and safest plan. If the plowing and other preparation of the ground has been well done, and the corn well planted, it may be said truly of the cultivation, "that well begun is well done." The proper depth of covering in planting corn, depends on the nature of the soil. The depth of an inch on some soils would be equal to several inches on others. A deeper eovering than is aetually necessary to produce healthy germination is prejudicial to the growth of the plant, and considering all circumstances, there are but few eases where it would be advisable to cover corn more than two inches, and in very moist soils, a covering of only one inch would be preferred.

Seed corn should be selected and gathered in the field before the main crop is harvested or gathered. The largest of twin ears, and those of earliest maturity should be selected, instead of deteriorating, corn may be much improved by this method. Most planters in this section, plant their seed corn dry. but a much better mode would be to soak it in a strong solution of salt-petre 15 to 24 hours, then roll in lime or plaster. This not only induces a more rapid germination, but a more healthy and vigorous growth.

CULTURE OF CROP WHILST GROWING.

In the early stages of the crop. the soil can hardly be tilled too much. The first object should be to keep the ground light and the crop clean.

The corn being fairly up, do not wait long for it to become large enough to work, get among it with the plow or cultivator and hoe, and it will soon reaeh the mark. Delay in this operation is like the boy who had his head eombed but once a month, and "wondered how anybody could submit daily to the torment of such an operation." He did not reflect that the daily operation which he dreaded saved all the pain. So, to some extent, is the business of plowing and hoeing young corn. Get into it early, and on soils which have a tendency to beeome too compact, plow close and deep with the bull-tongue plow or eultivator, penetrating the ground to a eonsiderable depth. Then hoe and thin nicely—be careful that you have no weeds or grass. It is the class of soils which bake under the action of the sun, that suffer most from dronght, and the crop can in no way be so well protected against injury from this cause, as by frequent stirring and loosening of the soil, by which the tendency to become too solid is counteraeted. While the crop is small, it may be run very close to the stalks without injury, but as the size of the plant increases, and the roots extend, the implement must not run so near. Early and quick work induces a rapid and vigorous growth, whieh is all-important. The after culvation should be done with the cultivator and harrow or shovel plow, not too wide. The turning plow or twister shold be discarded from all cultivation.

For light soils, the cultivator, harrow and hoe are the only implements necessary in the cultivation. The last plowing and hoeing should be completed before the tassels generally appear. Your Committee is of opinion that there is a great deal of useless labor spent in hilling up corn—indeed, in dry seasons it is worse than useless, as the corn is injured by it. The earth hauled round the stalks does not assist its growth, nor aid in holding it up—the brace roots, which come out as the stalks increase in height, support it, and it has been observed that in a heavy storm and thunder gust, corn that is hilled will be broken down more than that which is not hilled.

As regards manures, and their application, most suitable to corn, your Committee would name barn-yard manure and compost, litter and scrapings of every description, ashes, lime, plaster, &c., all of which should be spread on broadcast, (unless a small portion well rotted, be applied to the hills,) then plow and harrow well until thoroughly incorporated with the soil. The soil intended for corn must be dry—all experience proves that moist and wet soils are unfit for the culture of this grain.—The land should be made rich and thoroughly broken to a great depth before planting.—Corn will bear heavier manuring than any other cultivated plant, and the soil should be deep to permit the roots to descend beyond all danger of drought.

Cultivate deep and rapid, keep free of weeds and grass, and the whole surface smooth and level, except on moist or wet lands. Give the real garden culture; and our word for it, your corn crops will be more than doubled.—And instead of the ruinous system of depending and obtaining our supplies from other States, (as has, to a great extent, been the case the past seasons.(each and all may be corn-sellers, with plenty of fat hogs and horses. A word to the farmers: it is to be regretted that there is not among the majority of farmers, a more inquisitive spirit in regard to the nature of the objects with which they are so intimately connected, and from which they expect to derive not only their subsistance, but their hope of gain. The leading object of agriculture, is to increase the quantity and improve the quality of the productions of the soil, and to do it with the least expenditure. In order to accomplish this, we must resort to experiments, and here again opens a wide and extensive field. In consequence of the great variety of soils, experiments in different kinds, though naturally of the same nature, will not produce like results. The leading principles of agriculture are ever the same: animal and vegetable matter, after decomposition, furnishes food for plants, while heat, air, and moisture, add in nutrition. There is nothing that does more towards improving the minds of farmers, than the circulation of a well conducted agricultural paper. It is a means, when contributed to by able and practical farmers, by which every man may derive new and useful information.

The contents are made up of the results of the most careful observation, and consists, in itself, of a general storehouse of knowledge, from which all may draw something new and serviceable.

It also furnishes a common medium for farmers to communicate and receive instruction, thus enabling them to profit by the experience of each other. Hence the importance of every farmer subscribing for and reading some agricultural work. There are several excellent works, on this subject, published both North and South, monthly, at one dollar per annum, many single numbers of which are well worth the subscription price.

We earnestly solicit every farmer to become a subscriber and reader of one. Your Committee trust that the importance of the subject will be an ample excuse for having written at such length; and if these imperfect remerks induces one farmer to subscribe for an agricultural paper, another to thinking, and others to experimenting, they will feel amply repaid for all the time and labor bestowed.

H. STEWART, Ch'n.

Number of Plants per Acre.

The following table may be useful to the gardener, in showing the number of plants or trees that may be raised on an acre of ground, at given distances apart, when planted at any of the undermentioned distances.

Distance apart.	Number of Plants.
1 foot,	43.560
1½ "	19.360
2 "	10,890
2½ "	6.969
3 "	4,840
4 "	2.722
5 "	1.742
6 "	1,210
9 "	587
12 "	306
15 "	193
18 "	134
21 "	98
24 "	75
27 "	59
30 "	40

Diseases of Swine.

Eds. Farmer and Planter:

Gentlemen—I have long intended to write something to help fill your columns; but I have not been able to choose any subject which I thought would interest your readers. Having to renew my subscription, and having lately had something to do with sick hogs, I have determined to pen a few lines on the diseases of swine.

In an experience of more than 20 years, I have found the hog subject to three principal diseases—that is, 1st, catarrhal fever with inflamed throat and lungs' 2d, inflamation of the stomach and small intestines; 3d, poisoned by eating mushrooms. I have lost a great many hogs from each of these diseases. I do not pretend to have made any discovery of a sure cure for any of them; yet it may be that what I shall say, may be of service to some of your readers.—and first, the *inflamed throat and lungs*—it may be called Influenza. In this, on dissection, the throat or lungs, and sometimes both at the same time; are found to be inflamed. I have seen puss or matter, around the throat. The symptoms are wheezing and cough, fever and want of appetite. These symptoms are well marked and easily known. Treatment.—It is a difficult task to physic a hog, at least I have found it so. so much so that when force is required, I have generally failed, and do not now often try it. And in this disease forcing anything down them, has always seemed to do harm. The treatment I commonly adopt has been bleeding, by cutting off the ears and tail close to the body, I have bled in the arm, but it is difficult—indeed I know of no safe and easy way of getting blood. I have been told they will bleed freely by forcing a penknife ½ or ¾ inches between the fore teeth and upper lip. But to proceed: bleed if you can early in the disease, after which I have given from 2 to 6 grains of tartar emetic, according to the age and violence of attack—to a shoat 6 months old 2 grains—a year old and upward 4 to 6 grains; repeat every morning until there is an amendment, &c. In very bad cases it may be given twice a day. It can be given in a little mush or anything the hog will take. There is nothing new in this treatment, except applying it to the hog. It is a modification of that adopted by many physicians in the human subject for a similar disease.

2d, *Inflamation of the stomach and small intestines.*—This will be ascertained by dissection. Its symptoms before death

are not very clear. The hog refuses to eat, perhaps more decidedly than in any other disease. He droops and lies almost constantly, appearing very averse to moving about. I have been only able to detect it by dissecting the first one that dies. I may have had solitary cases under different circumstances, but so far I have never detected it except when my hogs have had the run of the pea fields, where there were many rotten peas. Dr. M. W. Phillips says rotten or rotting peas "will kill hogs," and when they do, I suspect it is by producing inflamation of the stomach and bowels. Dr. P. says it has happened to him after long continued wet spells. PREVENTION.—Feed your hogs with corn when in a field of rotting peas, or take them off altogether. TREATMENT.—It is only with the three last cases I had that I adopted any treatment—the first case was far advanced and died—the other two recovered—two had died before. They were bled by cutting off their ears and tails, and had from 10 to 20 grains of calomel every day or two. It may be given in mush; but some of these refused to take anything but raw flesh, and the calomel was given in pieces of rabbit flesh. When they would eat, they were fed mostly with gruel made of second quality flour, and some milk was added. They absolutely refused corn for many days. They had warm beds under shelter.

3d, *Poisoned by mushrooms.*—Like the pea, mushrooms appear not to hurt the hog except when they are rotting. There is another resemblance—it is in long warm wet spells in the summer months, that they do the mischief. I am unable to give the symptoms, neither have I made any dissections. It is probable they also produce inflamation of the stomach and bowels, and in that case might be treated as above. PREVENTION.—Here it may be truly said "an ounce of prevention is worth a pound of cure," for I know of no cure. Keep them in grass fields and out of the woods during those spells of weather that favor the growth of the mushrooms. Since I have adopted this plan I have lost very few. TREATMENT. I have said I know of no cure. A watchful neighbour of mine puts them up in pens, and gives them nothing to drink but water having epsom salts dissolved in it, and feeds them with sour dough. He is satisfied this is good treatment. My hog-feeder says he has cured two by cutting off their ears and tails. I have heard of their being drenched with hog's fat. Will not some of your medical readers give us the appearances on dissection, and a plan of cure based on that? Surely the subject deserves attention. My own experience is that domestic animals, for similar diseases, should be treated very much like the human subject.

LAURENS.

For the Farmer and Planter.

The Flour Cure for Burns.

I do not recollect to have seen the above in your columns; but it deserves a place there. A few months ago I was greatly shocked by the cry from the negro houses, that little Fanny was burnt to death. On reaching the spot, however, the case was not quite so desperate. Her clothes had caught fire, and her arm, thigh and body on one side, were extensively though not very badly burnt. In tearing off the clothes the skin in some places was abraded. Bandges to confine anything here, would certainly have increased her sufferings. Wheat flour was dusted all over the burn, and repeated as often as any moisture oozed from it. She was soon quiet and comparatively comfortable. Whenever the crusts of flour dropped off, it was again dusted. When flour would no longer stick, the parts were greased. This was the whole treatment, and in a few days or a week, the parts were skinned over. Let your readers try it.

LAURENS.

From the Charleston Mercury

Gypsum as a Fertilizer.

GREENWOOD, Jan. 20, 1853.

Dear Sir: Your letter of the 29th of June last, making inquiry about the application of Gypsum, and the benefits resulting from it, came to hand in due time. I deferred answering your inquiries at that time, from the fact that I could not give you reliable information as to the results, as it was the first season that I had applied it, and I regret that my experiments were not conducted with more care, having an eye more to the general results than to the exact difference in the yield in a given quantity of land. I have always been particular in recommending anything new in agriculture, unless I was perfectly satisfied that it was both practical and profitable to the cause of agriculture, and I have availed myself of the use of the columns of the Mercury, that others may be induced to give their experience in the use of an article which it is believed by many will produce a great revolution in the production of cotton in this State. And I would here remark, that no one experiment (however well conducted) should be received as conclusive evidence of its practical utility, until it has been tried two or three years; and too much care cannot be taken in noticing the different seasons and the various soils in which the experiments are tried. I purchased ten barrels of Gypsum last spring in Charleston, and concluded to try it on an old sandy field which had been in cultivation upwards of sixty years, and was completely worn out; and some five or six years since I commenced trying to improve it, and had succeeded in destroying the running briers and may-pops which had taken possession. I had planted it in cotton three years in succession; it was manured in the drill each year, and I suppose it produced about 600 lbs. to the acre. The past year I planted it again in cotton, and opened the old bed with a long Scooter, and bedded out with a turning plough. About the tenth of April we commenced planting, and the day previous I measured three bushels of cotton seed, one bushel of Gypsum and two bushels of ashes, and wet them and rubbed them neatly, and in the manner described I mixed and rubbed until I had enough to plant the field, (which contained fifty acres.) The Cotton came up beautiful and grew off finely, having a green, luxuriant appearance, and continued to look well until the excessive rains in June, at which time it died out badly, and I almost despaired of making a half crop; but it recovered in July, and began to grow and spread beautifully, and up to the last of August it still looked well, though it was rather too late; at that time the excessive wet weather set in, giving it another back-set, but it soon recovered and continued to grow and mature, until it was killed by frost. I noticed one particular, that it did not shed the bolls and squares, as my previous crops had done, and I remarked that cotton in the same field, previously, had invariably quit growing by the first of September, but the present year, it continued to grow until frost. I also tried an experiment with one bushel of Gypsum, one bushel of Guano, and two bushels of Ashes, which I rubbed with three bushels of cotton seed, but I could see no perceptible difference from that planted with Ashes and Gypsum. There are three things to be noticed in this experiment, first, the land had been manured previously in the drill; second, there was two bushels of Ashes mixed with the Gypsum, and third, that the past year was unusually wet. All

this should be taken into consideration, and allowance made in the calculation. I requested my overseer to notice particularly the amount of cotton picked, and he estimated it at 800 lbs. to the acre. Here is 200 lbs. more than had ever been made before, to the acre, and I leave you to draw your own inference.

I planted ten acres in stubble land, prepared in the manner described above; the result was entirely satisfactory, as we gathered ten bales of cotton. In conclusion, I am inclined to think that land containing a quantity of vegetable matter will give better results than that which has but little, and I am perfectly satisfied in my own mind, that if our Railroads would adopt a liberal rate of freights for fertillizers, we would increase the production of our soil at least one-fourth.

I am yours, respectfully,

THOMAS B. BYRD.

To Col. JOHN CUNNINGHAM.

Smut in Wheat, and the Cause of It.

NUMBER III.

[*Continued.*]

In my former articles I gave a statement of facts. A leisure moment affords me an opportunity of giving my *theory*, founded on those facts.

I suppose the smut bug (or its precedent worm) to remain in the ground in a torpid state, during the winter, like the common fruit curculio. When the spring opens with sufficient warmth, it revives and commences its work of destruction by attacking the *roots* of the young wheat. I am led to believe this the more readily, because, as stated in my first article, I have invariably found the vitality of the roots of the smut wheat destroyed by some worm or insect, and I can imagine none so likely to *commence* the destructive process as that which *completes* it, by its operations on the grains in the ear. It therefore probably feeds on the bark, or outer covering of the roots, until the time of the earing or "heading out." Those plants which have been thus injured, generally throw up feeble stems, with small ears, not having received the proper quantity of nourishment from the roots. As soon as the ear appears above the sheath, and when it may be supposed to be in a critical state of *gestation*, the bug leaves the roots (the bark of which has become too tough, to supply it with suitable food,) and climbs the stem to the ear, where it consummates its destructive operations by perforating the chaff cases of the grain, within which it deposits its nit, or egg. The puncture probably injures the small vessels which would otherwise supply the grains with their proper nourishment, (in whole, or in part,) and causes an entire change in the substance of the grain.—This change renders it the proper and natural food of the bug. It also becomes the fit receptacle for the deposition and nurture of the ova of the insect. I suppose the change in the grain to be produced by the perforation of the case, or chaff, and deposit of the nit or egg; for I have now in my possession several ears, in which there are many grains of smut and good grain intermingled; and also several ears in which the grains are part smut and part good farina—some about half and half, and some more or less of each.

It has been conjectured by several writers on this subject, that a radical change in the plant is effected by the operation of some latent poisonous principle, before the earing out. One writer (Duhamel,) has stated he "found the ears smutted as early as March or April, upon carefully opening the hood, or blade, *even when not more than the sixth part of an inch in length!*" Another (Tillet) says, "the smutted heads or ears can oftentimes be found *vitiated in the hood*," &c.—Spallanzani "found (or supposed he found) that the smut was produced in the plants long before the impregnation." Whence Darwin concluded, "that for want of impregnation, or the vivifying principle, the wheat corn might putrify, as in the case with addled eggs," &c.

With a knowledge of the facts stated in my former numbers, it is impossible for me to believe that the farina could have been smutted by any "vitiating principle in the air," when the ear was not more than the sixth part of an inch in length, and still "in the hood;" or that smut was produced from "unseasonable cold and wet." For, in either case, I must suppose that a diseased state of the stem, or ear, would so operate upon all the sap vessels, as to produce a change in *all* the grains of the ear or at least of the *whole of each grain* affected by the disease. That there is a constant circulation of the sap in plants while growing, in some degree similar to the circulation of the blood in the animal creation, I presume no one will deny. Such being the case, it is difficult to imagine how one part of a grain can be good and the other bad, when the same sap is circulated and distributed to each section in precisely the same manner. I have little confidence in the statements of the discovery of smut at so early a stage in the growth of the plant—in the fine-spun theories respecting the cause of smut, I have none at all. My observations have convinced me that the change in the grain is produced after the earing, or "heading out," and while the germ of the grain is expanding. In cases where the grain is wholly smutted, I suppose the perforation to have been made at so early a period, that the germ being very small it is wholly affected and changed into smut. When the grain is only in part smutted, I suppose the nit to have been deposited at so late a period as to injure the part of the grain immediately around it; and that the other part of the grain being too much hardened to be operated upon, produces good farina or flour. As the bug is slow in its operation (and but one perhaps on an ear) it may be, and probably is, several days in perforating the grains in a single ear. In such cases, some of the grains perhaps are not perforated at all, and of course are not affected, while others in the same ear are entirely or in part smutted. Whether the bug, when it deposites the nit or egg, leaves with it some poisonous matter for its sustenance, which produces the change in grain, or whether the nit very soon becomes a worm, which nestles in the grain, and thus produces it, I do not know.

When I wrote those articles for the Argus, I had no very definite opinion as to the particular manner in which the smut was formed by the operations of the "bug," (or "beetle," as some fastidious learned people insist upon calling the insect.) It will be perceived that in my third article I gave it as a supposition that "the bug, or its precedent worm, when revived by the warmth of the spring, commenced its work of destruction by attacking the roots of the young wheat." From subsequent examinations, I am convinced that that conjecture was not well founded I am now perfectly satisfied that the excoriations of the roots of the wheat were made by the "wire-worm," which has for the last twenty-five or thirty years destroyed so much of our wheat; but which has generally been supposed to have been "killed by the winter." That the ova, or larva, of the smut insect remains, during the winter, dormant in the smut grain, as an egg or worm, there can be no doubt. The unexpected result of carrying the smut grains into my wheat field with the barn-yard manure, as stated in my second article, appears to afford sufficient proof of this. As great numbers assume the insect form in the fall, they probably

pass the winter in that state, and, like other insects, revive in the spring. However this may be, those which I hatched all died after a few weeks spent in feeding on the smutted grains contained in the bottle with them.

[*To be Continued.*]

Power of the Soil to Retain Manures.

BY PROF. J. J. MAPES, NEWARK, N. J.

We propose in our present number to show the power of the soil to retain manures, and the means of improving this property when required.

For a long time it was supposed that all materials soluble in water would pass downward in solution, and thus be lost to plants—those who worked clayey soils claimed that, because water could not readily percolate their soils, that hence, they were not *leachy*, and therefore retained manures—while other operators with sandy soils argued that manures passed downward and were soon lost to the surface of the soil.

All these positions are false. It is true, that a fair proportion of alumina is valuable to soils, and in the absence of carbonaceous matter is absolutely necessary for the retention of manures, but it is not true that the tenacious property of clay need exist to such an extent as to prevent the free filtration of pure water before the manures will be retained—for many soils which will pass pure water readily, will still retain, from impure water, all its impurities, permitting only the pure water to descend. Indeed this is true of all arable soils, and if it were not so, the water in all our wells would be unfit to drink from being surcharged with soluble organic matter.

Even the brown fluids of a barn-yard will not leach downward in the soil, without leaving all the fœtid matter in the surface. Dig in an old barn-yard, but a few inches below where the soil has been before disturbed, and it will be found not to have become dark-colored, and not to contain any undue proportion of the soluble matters resident at the surface, but to be like the subsoil of adjoining fields.

Alumina (clay) has the curious property of receiving and retaining all animal and vegetable substances, and their gaseous products, until abstracted again by growing plants, and for this reason a free clayey loam will purify water during its passage through the surface soil, retaining all the fertillizing substances originally held in the solution, and permitting the pure water to pass downward. Nor does this retaining power cease with organic substances alone, for many of the alkalies are also retained, and all of them to a certain extent. Excess of lime, potash or magnesia will pass down and therefore the chemist finds variable proportions of these alkalies in our well water.

This peculiar property of clay was noted by Mr. Teschmaker of Boston, in his public addresses many years since, and in our published addresses before the American Institute, as far back as 1840, the same truths are set forth. Within the last two years, Professor Way and other English chemists are claiming this as a new discovery.

Alumina is not the only substance in soils which has this retaining power, for carbon in every form has similar properties, and it is not important whether charcoal dust be artificially added, or exist in the soil by the decay of former vegetation or of manures; for in either case carbon is the result, and as such, has similar retaining powers to those of clay. Thus charcoal dust placed for a time near a fermenting dung heap, will receive and retain the gases arising from decomposition, and if placed in the soil will give out these gases again to the roots of growing plants. Privies, stables, &c., are rendered inodorous by the use of charcoal dust. Decomposed peat, turf, swamp muck, &c., are but varied forms of carbon, with some more partially decomposed vegetable matter. The dark color of soils is due to the presence of carbon; humus, vegetable mould, &c., are but modifications of carbon.

All know that an old and black garden soil will retain manure longer than field soils, and that a less quantity of manure will act in them, for the simple reason, that the carbon (charcoal,) contained in them, and arising from previous decay, retains the reluctant gases from the decomposition of the manure until used up by plants.

Let any farmer try the following experiment and he will be satisfied of the truth of our statement.

Prepare four barrels by taking out the upper heads and boring small holes in the lower heads, stand the barrels on end and fill them with the following substances:

No. 1. Barren sand with one-tenth the bulk of clay intimately mixed throughout the mas.

No. 2. Barren sand with one-tenth of finely ground charcoal dust.

No. 3. A dark colored loam or garden soil.

No. 4. Barren sand alone.

Pour on all four barrels the brown solution from the barn-yard, and it will be found, that the water running out of the bottoms of Nos. 1, 2, and 3, will be colorless and without smell, while that from No. 4 will be unaltered and as offensive as when placed on the top.

The question may now be asked, "if the soluble results of vegetable decay do not filter downward, what becomes of them?" We answer, that resident in the earth's surface, from the combined influences of sun and air, they decay, and take the gaseous form; if the soil contains either clay or carbon, these gasses are absorbed by them, until abstracted by growing plants. But if these substances are not resident in the soil, then the gasses rise into the atmosphere, and are absorbed by better prepared soils elsewhere, or are carried to the ocean and are thus lost for a time from the land.

Let our readers reflect that both the vegetable and animal productions of the earth's surface are continually decaying, and that nothing but the facts we have stated can account for continued fertility. For if the results of decay could filter downward in solution with water, long before this time, the whole amount of organic constituents would have passed below the fertile surface, all our wells would be filled with masses of filth, and both animal and vegetable life would have ceased. The simple facts are, that all organic manures do decay in the earth's surface, and are only lost by rising in the goseous form, and not by sinking below the roots of plants, and therefore they should be plowed under to such a depth that their resultant gases when rising shall meet with a sufficient quantity of alumina or carbon to arrest them.—*Journal of Agriculture.*

Farmer's Wives.

The farmers of this country occupy a position of honor and usefulness. They are the source of a nation's wealth and prosperity, and by their vote and influence can, at any moment, decide its destiny. Farmers' wives occupy a position of corresponding importance in our own country's history; they are and have been the mothers of the men whom our nation delights to honor, whose voice of wisdom and warning is heard in our nation's councils. Lebanon shorn of its stately cedars, would be her

sad emblem, were our land bereaved of our patriotic and heroic men whose early youth was associated with rural scenes, with woods and streams, and the bird voices that fill the air with melody. But the sweet voice that stilled the cry of infancy, the kind hand that led them to the altar of prayer; the counsels that conducted them in the paths of wisdom, the influence that developed their moral nature—those were the pledges and presages of their future greatness. The wives of our farmers, whose thrift and industry have secured for their husbands a competency, whose intelligence is the light of the social circle, and whose piety is the guardian of domestic peace, are emphatically "the mothers of our men." A failure in the country—with all the opportunities of success, away from all the moral contaminations of a crowded city, amid the free refreshing winds, among all that is pure and poetic in nature, amid all that is suggestive of truth and beauty, and all that is bountiful and beautiful in agricultural pursuits and success—rightly to train up children, should awaken the voice of instructive warning. They may have been no failure in accumulating wealth, none in making home beautiful and tasteful to the eye; but the failure has been where it is most fatal, in training the heart and directing the footsteps of childhood. There may have been lavish expenditure to gratifying fashion and perverted taste, but little care to develope the intellect and train the heart. There may have been great expease to teach children to sing, to play and dance well, but none to make them useful, virtuous and happy. Hence the failure, and the need of warning. There is tendency in these days of wealth and luxury among our farmers, to imitate the ostentation of fashionable city life. We are not averse to the elegancies of life; but to train up our daughters only to shine in the parlor, to play the guitar and speak correctly the French accent, and our sons to despise the honest toil of the husbandman, to feel that they must aspire to a profession, if they would become men; this is a sin not to pass unrebuked. Our fathers, who laid the foundation of our nation's greatness, were the humble tillers of the soil; and many who have plowed the field and sowed the seed, have risen to guide the affairs of state, to hold converse with the muse, or to sweep with a Milton's hand the harp strings. Our mothers, whose names and heroic deeds are immortal, cultivated the domestic virtues, plied the loom and the needle, and made the garments of the men whose names are associated with the heroism of the past. We must look still to farmer's wives, who are blessed with children, for the men of strong frames, of iron nerves and heroic hearts, to accomplish our nation's destiny. Let them not be recreant to their high trust. if they fall, to whom shall we look for the men, and the women, that shall be worthy to steady the ark of God, and train the coming generation for usefulness in the blessedness in heaven.—*Anonymous.*

From the New England Farmer.

Warts on Plum Trees.

Frequent complaints continue to be made by correspondents of agricultural papers, and others, of the black bunches on plum trees, and as many inquiries for a remedy. Cutting off the bunches and burning them in the fire is every where prescribed as that remedy, and more than thirty years of personal practice, and observation of the practice of others, enables me to say that remedy is effectual. It is easy and simple, though sometimes a little severe on the tree. It may be it is too simple, and that a compound drug of many foreign hard-named materials would be more attractive, the application of which would be ten times the labor that the ready use of the knife requires. If the depredation of the curculio could be as easily prevented as the black warts, plums would be vastly more abundant than they have been. The last season, however, my plums suffered but little, and my cherries much less than ever before from the bite of the curculio. I attributed this to the very frequent high winds that prevailed about the usual time that the plums and cherries get their wounds. High winds clear the atmosphere of musquitoes and may partially do the same of the insects or bugs and millers that sting fruit.

Peach and cherry trees suffered much the past season by the great flow of gum. On examination of the bark about where the gum oozed out it was found dead, and the wood dead or affected under it. Whether the flow of the gum is caused by a worm or not I cannot tell, though it appears to me that irritation from this source affects it. Upon that supposition I use the knife, gouge or chisel to remove the dead bark with the gum, and leave the wood naked to the sound line of bark and wood; and if done thoroughly the gum ceases to flow—the wound becomes dry and is soon covered with the growing wood. I had a young, thrifty cherry, the Yellow Spanish, several years ago, badly affected and nearly girdled by dead bark, which I removed with the gum and to such extent that I expected to lose the tree. The gum ceased to flow and the tree soon healed over sound and has grown vigorous and large. No gum has till the past season made its appearance. On examination the same state of the bark and wood as formerly appeared—the same remedy applied, and thus far with the same good effect. Whether the cause be a worm, or a disease or cancer of the wood, so to speak, the free use of the knife appears to be the efficient remedy. On peach trees the effect of removing the dead bark and gum and leaving the naked wood to the air has had the same good effect, so far as my limited experience has gone.

RUFUS MCINTIRE.

Parsonsfield, Me.

From the New England Farmer

Independence of the Farmer.

MR. EDITOR:—Everybody in America wants to be independent. We have lawyers, physicians mechanics, ministers and farmers; all striving to obtain or secure independence; and all, in a good degree, feel satisfied with the result of their labors in this behalf. We glory in our political and religious freedom; all of us. Here, we are all equal, from the President down to the pauper; if, indeed, the down hill slopes in that direction, which is a question fairly debatable. But after all, there is no class among us so decidedly independent as the farmer.

Look at the minister! Does he dare give utterance to sentiments that he knows will be generally distasteful to his society? Does the lawyer want to displease his townsmen, on whon he may depend for a living? Or do tho merchant and mechanic feel perfectly free, at the commencement of their business, when the good will of the community may be considered as a portion of their capital, to take decided positions on the unpopular side? There are many of these classes, to be sure, that feel as independent as the farmer; because, by success in business they do not feel the necessity of employing this *windy* capital, the breath of popular applause. So long as men see that their daily bread, in a good measure, depends on the esteem of their fellows they must be desirous of securing it. The mechanic depends in part, and principally, on his skill; and so of all professions. But they all depend also, in some degree, on the good will of others.

The farmer also, relies on his skill; but, the opinion of his neighbor is not worth a groat to him. so far as his ability to live is concerned. He plants his fields, and the good Lord, who "sends his rain on the just and the unjust," makes no distinction. He waters the fields of the Whig, the Democrat, the Abolitionist. the Infidel, and the pious man, alike. The wildest fanatic in the country, by suitable tillage, may raise as good a crop as any one, and sell it as well. But let him attempt to live by preaching, as a merchant, or mechanic; how would he prosper? He would certainly be driven from the pulpit, and most likely starved from his shop. Professional men must study social laws. The farmer depends on the laws of nature. The former are always changing; the latter, never. Consequently, the professional man is often in a dilemma and hardly knows what to do, for fear he shall offend the popular taste or broach an idea not in fashion. The farmer says just what he pleases; for it never was yet discovered that it killed his cattle or rotted his potatoes. And the farmer has more leisure time than most mechanics or professional men Or if he has not, it is his own fault. No farmer needs be a drudge. [a.] His flocks in the pasture and his crops in the field are growing while he sleeps. When the merchant or mechanic closes his shop, the income from his business is suspended. But the farmer's income is always increasing. He relies on nature, who labors for him continually, and on nature's God who never slumbers.

If a young man wants to engage in business that will insure him in middle age the greatest amount of leisure time, there is nothing more sure than farming. If he has an independent turn of mind, let him be a farmer. If he wants to engage in a healtey occupation, let him till the soil. In short, if he would be *independent* let him get a spot of earth; keep within his means, to shun the lawyer; be temperate, to avoid the docter; be honest, that he may have a clear conscience; improve the soil, so as to leave the world better than he found it; and then if he cannot live happily and die contented, there is no hope for him. S. F. JR.

Lyme, Dec. 28th, 1852.

REMARKS.—[a.] We say so too. Even if he lacks capital to manage his farm matters as he would be glad to, he is out in the free sunlight, goes and comes as he will, sustains his health, and calls no man master. We thank you, friend "F.," for the utterance of these just thoughts. —ED.

From the Working Farmer.

TANNERS' BARK AND POTATOES.

Prof. J. J. Mapes—My Dear Sir:—On the subject of spent tan for potatoes, I believe I ought to contribute my mite of experience; although as I had no thought of making anything like a test experiment, and still less of publishing it, the matter was not conducted with a view to any exact details of procedure and results I am sorry now it was not.

I had a few rows (something less than one-eighth of an acre) of very poor land planted with Western Seeds, and directed a shovelful of tanners' bark, composted with quick-lime last winter, to be thrown upon each hill. This was all the covering and all the manure they received. The potatoes were uncommonly large, and not an unsound one among them. The yield was three or four times greater than that of my main crop on pretty good land well manured with the best of farm-yard manure, made and preserved in the best methods. My main crop, however, was of a *different sort*—being Mercers, Carters, and Nova Scotias, and so the experiment is defective in one respect.

The pith of the experiment, however, lies in an accidental circumstance. The tan-covered potatoes were grown on one side of a field which I had planted with Dutton corn, as it was remote from my main corn land. The corn was manured in the hill with a large double handful of a mixture of poudrette, plaster and ashes; and it happened that the seed was exhausted, leaving a part of a row (a hundred feet or more) of the land thus manured unplanted with corn, alongside of the tan-covered potatoes. This fraction of a row was planted with the same kind of potatoes.—The yield was very small both in quantity and size—scarcely half as much as the adjacent row covered with the tan.

I may mention another bit of experience on this subject. I had a small patch of old pasture sod turned over and planted with potatoes in drills without manure, and covered with tan composted last winter with the salt and lime mixture, (a very poor mixture, by the way, owing to the extreme severity of the cold when the lime was slacked.) It so happened that in a corner of this patch there had been in former years an old pig-stye, the decayed fragments of which were removed when the land was plowed. This space (about a square rod) was such a mellow black loam, that no tan was put there. My farmer made me no report as to the yield; but my attention was called to one fact, that while all the potatoes covered with the tan were sound, those grown on the site of the old pig-stye were, very many of them, diseased—whether with *the* veritable potato rot of late years, I am not able to say. One of my men says it is.

These experiments, it will be seen, do not go to determine the value of tanners' bark by itself; but I have thought that they may be of some interest to your readers, and may, perhaps, induce a more thorough and accurate trial of this substance for potatoes.

C. S. HENRY.

Oakwood Hill, 30th Oct., 1852.

For the Farmer and Planter.

Thoughts on the Proper Management of Stallions.

Messrs. Editors:—Valuable Stallions are now very scarce in this part of the country; and well managed Stallions, according to my notions on the subject, are still more scarce. Those we have might be much improved if a few physiological laws were observed, in a plain common sense way.

That "like begets like," is the first great law to study, in such matters.—Therefore, the more perfect the sire—other things being equal—the greater the probability of the colt being what is desired

The horse is an animal valuable for his muscular power. The more perfect the muscular system of the horse, the better the prospect for the colts to be of that character. Exercise is necessary for the development of muscles in the growth of animals, and equally indispensable to the continuance of highest health and most perfect well-being, of the muscular system. Then, in place of keeping Stallions in the stable, tied up, —preventing exercise, or taking them out to exercise in handsome times—giving too much and sometimes too little—would it not be better to have a large lot connected with a Stud's stable, and let him run in it and take exercise as he pleased?

Again, docility and kind temper are very desirable in horses; and if the sire possesses those qualities, a reasonable expectation may be indulged that his colts will inherit them. Then why don't we have our Stallions all well broke to the saddle and harness before they are put to breeding, and practiced enough in that way afterwards to keep them gentle: other things being equal, I would always prefer the well broke horse.

The great matter with most of horse keepers, is to make the animal "show well"—and therefore he must be full fed on corn, so as to make

him fat enough for beef; he must be kept as still as possible in the stable, until his nervous system becomes so irritable that he comes out "squealling," kicking, racing—the more the better. In this condition he propagates; and the colt is a little irritable, impatient animal—of very little use for anything. This confinement, high feeding, and want of exercise, very often in a few years destroys the health of the horse and puts out his eyes—and as this state of things approaches, his colts partake more and more of it.. Hence the larger part of the blind, miserable looking horses to be seen in the country.

Mind, I am speaking of useful horses and not the racer—for I have no more use for him than I have for a deck of cards or a dice box. I like well bred horses.—and if they were bred, for a few generations, for useful purposes, I have no doubt that in this part of the country they could be made more useful than any other.

I would say to those who are raising colts intended for Stallions,—Give them plenty of exercise while growing.—Feed well with oats, hay, peas, corn fodder and green food, so that all the materials for bone, tendon and muscle may be amply supplied to give size and beauty. Then handle them a great deal to make them kind and docile and brave. When large or old enough, break them to harness; and if you find them handsome, resolute, docile, brave, with good constitution and great capability of endurance, then offer their services as breeders, —and not before. I see men breeding from mere blood—this ought not to be done. Blood is good in its place, but is only valuable when united with qualities.

The last common error I shall notice at present, is the practice of permitting Stallions to trot over the country to hunt custom. If a *Stallion* is worth breeding from, he would get as much business as *he ought to do* at his own stable. While *Studs* travel in the spring to every man's plow to hunt something to do, and can't stay and make his *board* but one season in the same neighborhood, we shall do no good raising horses.

If Stallions were broke to work and be useful out of the season, the expense of keeping them would be less; and the healthful exercise would conduce to their own health and longevity, as well as cause their offspring to be more valuable.

A. B. C.

STRAWBERRY CULTIVATION.

Those who know anything about the magnificent strawberries and the immense quantity of them raised in a bed thirty feet by forty, for several years past, in the garden formerly owned by me in King street, may like to know how I cultivated them. I applied about once a week, for three times, commencing when the green leaves first began to start, and making the last application just before the plants were in full bloom, the following preparation—of nitrate of potash, of glauber salts and sal. soda, each one pound; of muriate of ammonia, one quarter of a pound—dissolved in thirty gallons of rain or river water. One-third was applied at a time; and when the weather was dry, I applied clear soft water between the times of using the preparation—as the growth of the young leaves are so rapid that unless well supplied with water, the sun will scorch them. I used a common watering pot and made the application towards evening. Managed in this way, there is never any necessity of digging over the bed or setting out anew. Beds ten years old are not only as good but better than those two or three years old. But you must be sure and keep the weeds out.—*Friends' Review, Philadelphia.*

I made a solution and applied it by the above directions to a strawberry bed nineteen feet square, in the spring of 1852, and notwithstanding the season was unfavorable for the strawberry, I gathered two bushels and a half (even measure), o, the finest berries I ever saw; some of them weighed over a half an ounce, and measured between four and five inches in circumference.

Southern Planter.] P. T. Bernard.

From the Southern Planter.

Experiments.

Mr. Editor:—The following experiments were made by the request of the Nottoway Club, and when reported, it was ordered that an account of them be sent to you for publication in the Southern Planter. This was done in Augnst, but as you informed me at the meeting of the State Agricultnral Society that you had not received my communication, I will, in compliance with your reqnest, write them off again and put them at your diposal.

At the meeting of the Nottoway Club, June 1850, one of the members and myself were requested to seed three similar acres of land in wheat—to apply on one guano alone, on another guano and plaster, and on a third nothing, and report the difference in the times of ripening, the weight per bushel, and product per acre, in order to test the expediency of combining plaster with guano. In accordance with the above, I selected three adjoining acres of gray, dry, thin land, of the same quality, judging both from the appearance of the land and from the growth of the corn then standing on it. On the first acre I applied 162 lbs. of Peruvian guano, on the second I applied the same quantity of guano and one and a half pecks of plaster, thoroughly mixed before sowing. On the third I applied nothing. The first and second acres were sowed the 5th and the third acre on the 6th of November. with early purple-straw wheat, one bushel to each acre, (the wheat sown first. and the guano on it,) and all turned under with a single-horse plough, and dragged.

The wheat on both acres dressed with guano looked decidedly better during the spring and summer than the wheat on the unimproved acre. The wheat on the acre dressed with guano alone looked better than that on the acre dressed with guano and plaster, so much so that I expected it to yield one or two bushels the most. The wheat with guano alone ripened about six days earlier than tha on the unimproved acre, and about two days earlier than the one dressed with plaster and guano. The wheat from the acre dressed with guano alone, weighed 64½ lbs.; that from the acre with plaster and guano, 64 lbs.; and that from the unimproved acre, 62½ lbs.; to the measured bushel. The acre dressed with guano alone produced 15 bushels 15 lbs.—The acre dressed with plaster and guano produced 15 bushels. The unimproved acre produced 5 bus. 15 lbs.

Charging 18 cents for 1½ pecks of plaster (which includes the cost, freight and interest), and adding to that 22½ cents for 15 lbs. of wheat, at 90 cents per bushel (that being the difference in favor of the acre dressed with guano alone), it will be found that there was a loss of 40½ cents to the acre, by combining plaster with guano. As there was only a difference of one peck of wheat between the two acres, I consider the difference accidental, but conclude that it is inexpedient to combine plaster with guano. But perhaps the plaster may show its good effects by the future improved condition of the land, by having fixed the ammonia of the guano. In order to ascertain the actual profit or loss by the use of guano, I will give credit for the production of each acre, then charge for rent of land and for all other expenses for each acre. The northern farmer invests his capital in land expecting to realize a profit from it by hired labor, while many of the sonthern farmers either make no estimate of the capital invested in land, considering it as only affording an opportunity for their negroes to earn as much as they would probably hire for; or they make no estimate for their labor, as they do not actually pay in cash for it by the day or month. These may be classed among many other reasons

accounting for our not being as thrfty as we should be. But this is a digression, and we will return to the estimate which is as follows:

Cr.

By 15 bns. 15 lbs. of wheat from acre dressed with guano alone, at 90 cents per bushel.....	$13	72½
By straw and chaff from do.	1	50
Gross proceeds of the acre dressed with guano.....		$15 22½

Dr.

To rent of one acre of land, no labor for fencing estimated...	$1	00
To 162 lbs. guano, at $50 per ton, freight included,.....	4	00
To interest on do. 24 cts. and to preparing and sowing do. 20 cents.....		44
To 1 bus. seed wheat 90 cts. and for getting in do. 75 cents.....	1	65
To cutting wheat on one acre. supposing two acres a day's work.....		60
To getting up and shocking do.		30
To hauling up, threshing and preparing for market 15 bus. 15 lbs. of wheat at 10 cts. per bus.	1	62½
To cost of getting do. to market and selling do. 10 cts. per bus.	1	62½
		11 29
Net proceeds of the acre dressed with guano.....		$3 93½

Cr.

By 5 bns. 15 lbs. wheat from unimproved acre, at 90 cts.....	$4	72½
By straw and chaff from do...		50
Gross proceeds of unimproved acre,		$5 22½

Dr.

To rent of one acre of land as above.....	$1	00
To one bushel seed wheat 90 cts. and getting in do.....	1	65
To cutting wheat on 1 acre, supposing 3 acres a day's work,		40
To getting up and shocking do.		20
To hauling up, threshing, &c. as above, 5 bushels 15 lbs. wheat, at 10 cents,.....		62½
To cost of getting do. to market, &c., at 10 cents. per bus.		65½
		4 50
Net profit unimproved acre,.....		$0 72½

Leaving a clear net profit on one acre by the use of guano of $3 21.

As the interest on the money invested in guano has been charged in the estimate for that acre, it should be added to the clear net profit, as above, in order to ascertained the rate of interest on the capital invested in guano, Thus 24 cts. added to $3 21, makes $3 45, which shows rather more than 85 per cent. for one year on $4 05, the money invested in guano, after making all the above charges except for interest. The above estimate is made on the supposition that all the fertilizing properties of the guano are taken up in the production of the one crop of wheat, which I by no means admit, as it is contrary both to my experience and observation.

But perhaps it may be more satisfactory to some, in making an estimate of the profit or loss by the use of guano, only to charge for the guano, seed wheat, and getting in the same. No one can object to these charges, as each acre experimented on had sowed on it an equal quantity of wheat, and an equal quantity of labor bestowed in getting in the same. It is evident that an acre producing 15 bushels will yield more than three times the net profit of one producing only 5 bushels, To occupy as little space as possible, I will say, deduct from $5 22½ the gross proceeds of the unimproved acre, as above, $1 65 for seed wheat, and getting in the same, which will leave $3 57½: then deduct from the gross proceeds ($15 23½) of the acre dressed with guano $4 05 for guano and $1 65 for seed wheat and getting it in, then will remain $9 52½, from which deduct $3 57½, the net proceeds of the unimproved acre, as above,, and $5 95 will be the remainder, which shows 147 per cent, on the capital invested in guano. This estimate, like the first, is made on the supposition that all the fertilizing properties of the guano are taken up by the one crop of wheat.

In the above I have made no estimate as it regards the less liablity of loss from rust, on account of the earlier maturing of the wheat, of the better quality of the wheat (as per above weights) nor of the improvement of the land by the use of guano. All these combined would not, I think. be over-estimated, if put at half the cost of the guano.

From the above experiments (not to say any thing of more favorable results as reported by others) I would say that on poor land (and especially exhausted land that was originally good. not encumbered with rock, nor pestered with sassafras, &c.) a farmer cannot in any other way that I know of, make so profitable an investment as by using guano for wheat. Yours, respectfully,

WILLIAM IRBY.

Lunenburg, Dec., 1852.

People seldom love those who withstand their prejudices, and endeavor to control their passions.

From the Southern Planter.

LOSS OF BACON IN CURING.

IMPORTANT APPLICATION OF THE SYPHON PRINCIPLE.

MR. EDITOR:—I promised you some time ago a memoranda I made of the loss sustained in curing pork into bacon. On hunting up the paper I find that it was in 1832 that I took six hogs which weighed 1,080 lbs., and after cutting them out I weighed the different parts separately. They weighed as follows:

The heads weighed.....	105	lbs.
The feet weighed.....	37	"
The backbones weighed.....	84	"
The fat weighed	83	"
The ribs and small pieces weighed	22	"
	441	"
The hams shoulders and sides	749	"
The 20th May, after smoking,	621	"
Loss in curing.....	128	"

The memoranda does not say at what time the hogs were killed or hung up, though it is not important; but I remember it was very good pork.

While I have my pen in hand I will give you some account of my syphon as some one may wish to convey water in that way, and be at as much of a loss as I was. I inquired of many persons and could find no one that had ever seen or heard of water being conveyed any distance in that way. I determined to try it, and have succeeded, contrary to the expectations of all my neighbors. I have the water coming to my house 440 yards distant. It comes over a hill 22 feet higher than the spring and about 50 feet higher than the house, in a leaden pipe three-quarters of an inch in diameter, and has been running since last April. It affords water enough for all ordinary purposes at the house, kitchen, stable, &c. I had some difficulty in starting it to work, and after trying various plans, I laid the pipe down the branch and let it run full of water, then stoped up the discharging end an put it in place. It is 3½ feet under ground, and is rather warm in the heat of summer. The cost besides the work of my own hands, was seventy dollars. To any one wanting further information it will afford me pleasure to give it.

Your friend, T. MINOR.

Charlottsville, Jan., 1853.

Pride and folly cost many persons more than their necessities.

Many drops make a shower—light gains make a heavy purse.

The Farmer and Planter.

PENDLETON, S. C.

Vol. IV., No. 3. : : : : : March, 1853.

☞ The Rev. THOMAS DAWSON, of Beaufort District, is appointed an agent of the *Farmer and Planter*.

☞H. P. DOUTHIT, of Alabama, is an authorized agent for the *Farmer & Planter*.

Answers to Enquiries.

Several of our subscribers since the commencement of the present volume, have been answered by letter. We shall in future, however,—unless in cases where an immediate answer is desired—reply through our paper, as in the last volume. This will save us not only the trouble of writing many letters, but the expense also, of postage on them—which, although but a trifle on each, amounts to something in a year.

H. R., ORANGEBURG, S. C. "Work for the Month."—We have not been in the habit of giving monthly, instructions under this head—as we suppose every farmer and planter will have laid out his work for the month before his paper comes to hand—even if it should be received early: and hence that he would not turn to his paper after receiving it. (for instance the March No.,) to know what work should be done in March. We have thought that if such instructions are given at all, they should be given earlier or in the preceding number for each successive month. Such instructions are, at best, a good deal like an old song—often repeated with but little improvement. The number of volume 3, which you ask for, we send with pleasure.—Our January and February numbers of the present volume, were later in getting out than usual, in consequence of the absence of our "Devil." We are expecting him back before long, however; and with his *stick* in hand to apply to our lagging team, we shall make a stretch to catch up with the old gentleman, Time, fast though he runs.

Dr. R. L. N., writes us from Walterboro', S. C.: "You were kind enough a short time since, to elicit for me from some of your subscribers, information as to the construction of a Smoke House, for which I thank you, and of which I availed myself. Will you now do me the favour to obtain for me information as to the construction of a Self-shutting Gate. I have been more than annoyed by having my gates left open. And can you tell me where I can procure a full-bred Berkshire Boar. I believe in the cross upon the common hog, having found them thrifty and healthy.—At what price can the boar be obtained? Very Respectfully, —— ——."

Will some of our friends who are "posted up" on the subjects of the above enquiry, respond?

By placing the hooks of a gate a little out of a perpendicular line on your post, with a projection of the eyes to correspond, you may cause it to close, when opened not exceeding three-eighths of a circle, by its own weight. For instance—Drop a perpendicular line on your gate-post at the usual distance from the edge that the hooks of the hinges are placed: drive your upper hook on the line and the lower one two inches back of it: then regulate the distance to which the eyes must project, so as to cause the gate to fit neatly between the post when shut—and woe to the urchin that stands in its way when it starts home. A gate thus hung, has an awkward appearance when open; but if the space between posts and the width of the gate correspond, fits neatly enough when closed.

We prefer, especially for small gates, hanging to the inside face of the post, so as to admit of the gate's opening either way. This is done by having the lower hinge to fork or branch, with a semi-circle at the end of each branch, to rest against and play on staples to be driven into the posts, at such distance apart as the branches may subtend—say from 4 to 6 inches. The upper hook and eye should be strong, so as to support the weight of the gate. A gate hung in this manner, should have suitable space between the post, to admit of its free swing. It will open freely in either direction—but to a point not much over a right angle to a line from post to post.

A gate has been patented, (a real "batting ram,") which, from the inclination of the bars on which it runs, closes with such force as to endanger a horse's hind leg, should he be tardy in bringing it up. We have on that opens and closes on the R R. principle,—but the bars on which it runs being horizontal instead of inclined, (as in the patented,) *it* requires force to either open or shut. A plate representing this gate, may be found in the Albany Cultivator, vol 9, p, 85—and the patented one in the same work, new series, vol. 2, p. 206.

We cannot say at this time, where the pure Berkshire can be obtained. We have in the vicinity of Pendleton some that are, probably, as pure as any in the State, and will take pleasure in procuring one and forwarding to our friend, should he not be able, from this notice, to get one nearer home.

Heaves in Horses.

A subscriber at Hamburg, S. C., sends us the following receipt for heaves in horses, for which he will accept our thanks:

"Take tar, about one table spoonful, on the point of a paddle, and after drawing out the horse's tongue place it as low down on it as possible, so that he will swallow it.—This to be done once a week. Give him, also, the same quantity of ground ginger three times a week, mixed with his feed, for one month.—The horse to be only moderately worked. This remedy has cured many cases.

SCOURS IN HORSES.—A neighbor has given us the following statement of his treatment of this disease: Having a valuable animal badly affected, he first parched to a brown color, a quart of corn meal, to which he added a sufficient quantity of water and an ounce of laudnum, and drenched with the mixture. This gave relief for some hours—but the disease returning, he boiled about a pound and a half, he thinks, of blackberry root with half the quantity of sweet gum twigs in three pints of water and one quart sweet milk down to near a quart, strained, and added an ounce phial of paregoric: when cool enough, gave as a drench, which effected a cure. In ordinary cases, he thinks the first tried remedy would be sufficient.

For the Farmer and Planter.

Smut in Wheat.

Messrs. Editors—Regarding smut in wheat I have to say, that I have been carrying on a little farm for ten years.—The first, my wheat was about half smut.—The next I had my seed run through Mr. McBee's smut machine attached to his flouring mill, and then soaked it in a solution of sulphate of copper or blue stone, as it is commonly called, at the rate of a pound to the five bushels of seed wheat. That year my crop was free from smut. Since that I have omitted the smut machine, but soaked every year in the blue stone in the same proportion, and have had no smut since. This is the common experience, as far as I know, in this district. I still hear of more or less smut every season amongst our farmers, but on inquiry have been told by those that complained, that they had not soaked their seed. I do not know one single instance of a smutted crop when the seed had been soaked in blue stone.

Our merchants now, as invariably lay in a supply of blue stone every fall, for our farmers, as they do any other article for the fall trade.

I give you the *facts*, but make no attempt to explain the philosophy.

I have never seen a smutty wheat field without the *black bugs* of which your correspondent speaks: *(a.)* nor have I ever seen a smutted head that did not *smell bad;* and from my observation and experience, I would as soon attribute the smut to the *bad smell* as to the bug: or I would as soon believe that the common weavel was the cause of wheat as that the *black bug* was the cause of smut. *(b.)* But in these conclusions I may be mistaken.

One fall, after soaking the seed in *blue stone*, I rolled part of it in ashes and part in plaster of paris. That rolled in ashes, came up and grew off decidedly better than that not so rolled—but there was no perceptable difference in that rolled in plaster and that not rolled in anything. I tried the plaster also on clover, corn, beans, peas, and various grasses and potatoes—both Yams and Irish—and perceived no benefit on any of them. *(c.)*

Nor have I been able to see any benefit from the use of lime, in the various small experiments which I have made: though the common wood ashes have been decidedly beneficial on grass,

and all the small grains on which I have tried them—particularly on wheat.—So that our soils need potash more than lime, in my opinion.

Most Respectfully,
A B. Crook.

Remarks.—*(a.)* Nor do we believe you ever will see a smutted head of wheat that *was not* produced by the bug, friend C. As to the "bad smell," that is undoubtedly the *effect* and not the *cause* of smut.

(b) We may, we think, as reasonably conclude that the "*black bug*" causes smut in wheat, as that the curculio is the cause of the rotting of a plum. Yet it would appear as absurd to believe that the curculio produced the plum, as that the weavil or the "black bug," either, produced the wheat. It is only believed by us or our correspondent, we presume, that the black bug, by its peculiar action on a grain of wheat when in the dough state, changes its character from that of a healthy sound grain to a stinking ball of smut, its proper nidus and food.

(c.) We have never experimented with plaster alone, but mixed with guano, coal dust and ashes, as stated in our last number: we have effected a very decided improvement on both corn and clover, with a very light application.—Eds. F. & P.

For the Farmer and Planter.

Experiment with Guano and Barn-yard Manure.

Shingleton, Sussex, Co., Va., Feb. 18, 1853.

Messrs. Editors: Although yours, dated the 31st of January, found my "pen ready nibbed," yet I must respectfully decline entering the "list" for a "free fight" with any of the champions of the "fungus theory" for smut. Close observation has convinced me as to the cause of smut; and nothing that has been said or can be said, will decide the question: a discussion on this subject is perfectly useless. A great deal of theoretical nonsense has already been brought to bear on this question. Francis Bonner, Esq., perhaps the greatest champion for the fungus theory, wrote ably and labored zealously to prove the cause he advocated, the true and only one. How fruitless the effort! Others have followed:—but theory will never put under foot truths that practical, close observing agriculturalists have arrived at. The theorist may spin his "long yarns," however plausible, yet must rest contented with convincing those of his "own cloth." But enough of this. I shall read with pleasure the discussion of this question, and shall look for some "far-fetched" arguments from the fungus theorists.

My object in addressing you, was to give the result of an experiment with guano compared with good barn-yard manure, on corn last season.

In the spring of 1852, I laid off that portion of my corn land that I designed manuring with barn-yard compost—having subsoiled and covered with scrapings from the woods, the remainder of the corn shift.

The manure applied—which I term barn-yard compost—was a complete mixture of stable manure, manure from fattening hogs, dropping from cattle, ashes, ditch bank earth, plaster and salt.—This manure was in fine condition when applied, being slightly fermented in the heap. An excess of fermentation should be avoided in the heap: the earth is the proper place for complete fermentation—then that portion of manures which are volatile, are secured and held in reserve for the cultivated plants. A heavy dressing of this compost was applied broad cast, and covered some six or eight inches with a two horse plow. The manuring being completed, I found that there was something over an acre of land left unmanured—on this I determined to try guano; and in this way, at the second working of the corn, throw the earth from the corn ("narrow way") with single turn plows, running some ten or twelve inches from the plants—then deposit two table spoonfulls of guano in the furrow just opposite the plants, so that in the future cultivation of the crop the guano would not be disturbed by the plow or hoe, as the cultivation would be the "wide way." The guano mixed with ¼ plaster was thus applied about the last of June—putting a single table spoonful on each side of every plant, and turning the earth back to the corn as fast as the guano was applied. It was not disturbed in the least, in the further cultivation of the crop.

Notwithstanding the crop was then suffering from a severe drought, which continued many days after the application of the guano, yet its effects were to be seen in the dark green which the corn assumed in a few days. Some fifteen days after its application we had a very good rain, then its stimulating and beneficial effects began more rapidly to develope; the crop grew more rapidly where the guano was applied than that portion to which the barn yard compost was put, and I began to fear an excess of stalk and blade. I left one row through the centre of the guano piece unmanured, in order to test its effects more satisfactorily. In November the entire crop was gathered, and an average row was selected from the guanoed piece and the manured portion. Here is the result, measured carefully and accurately: Manured row, measured at the rate of 20 bushels per acre. Guanoed row, rate of 32 bushels per acre.—Unmanured row, rate of 13½ bushels per acre. It is but just to state, that owing to the severe drought, the barn-yard compost did not benefit the crop but little, that portion of the crop suffered more than any other, and was greatly injured. That portion of the crop to which wood scrapings was applied and the land subsoiled, kept its color throughout the drought, and made as good a return as the manured land did in proportion to its fertily.

Truly yours, Thomas E. Blount.

To Cure Hams.—A correspondent of the Albany Cultivator (P. F. E., Nashau, N. H.), gives the following receipe: "As I have seen numerous receipes for curing hams, and as I have tried the annexed for several years, and found it to excel every other in my estimation, I take the liberty to send it to you, that you may publish it for the benefit of any who may be disposed to try it. By letting my ham remain in the pickle, it is less trouble to keep it than in any other method which I have found, and it keeps sweet and tender all summer.

Take a barrel, and turn over an old pan or kettle, and burn cobs, (I think the best) or hard wood, for seven or eight days, keeping water on the head to prevent drying. Make a pickle with eight pounds of salt, six ounces saltpetre, two quarts of molasses, and three gallons of water, to one hundred pounds. Boil and skim the pickle thus prepared. Then pack your hams in the barrels, and when the pickle is cold pour it on the meat, and in four weeks you have excellent hams, very tender, and well smoked.

Hilling Corn.—In cultivating Indian corn, I am confident that "hilling" is a disadvantage to the crop. Of this I became fully convinced several years ago on contrasting its results with those of the opposing system, in a field belonging to a friend. Since then I have instituted a variety of experiments, and have found that the least surface is most eligible, and that in all modifications of soil and temperature, corn which is not "hilled up" is the most vigorous, less injuriously affected by drought, and produces more and sounder corn.—*Germantown Telegraph.*

There is more fatigue in laziness than in labor.

Trading with Slaves.

The laws of South Carolina in regard to trading with slaves are very rigid.—The penalty is not less than one months' imprisonment, and one hundred dollars, and may be, in the discretion of the Court, one thousand dollars, and twelve months' imprisonment. The law requires, too, that the permit from the slaves' master to trade shall be in writing and be produced on the trial. No shop keeper or distiller is allowed to sell or give spirits to a slave under a heavy penalty. A slave seen going into a shop with an article and coming out without it, or seen going in without an article and coming out of the shop with it, is proof sufficient to convict the shop keeper of trading with a slave! These are severe laws, and it was found necessary to pass them to break up this trafficking with slaves.

It is known that there is a great number of persons who do not seem to regard these laws. They trade with slaves without thinking of the mischief they are doing. Chickens, eggs and fruit of all kinds are purchased of slaves, without reflecting that it is often stolen property they are purchasing. It is seldom that poultry or fruit is sold in the village of Greenville by slaves that is not stolen from their owners or some one else. Every correct man, and woman, too, should be exceedingly careful to purchase nothing of a slave without a written permit to sell.

Merchants, especially, should be careful to observe this well. Otherwise they are encouraging the slave to steal. It may be true that a merchant or shop keeper would not trade for any article of produce with a slave. But if he will sell his wares and goods to a slave for money, he thereby encourages the slave to steal the money or something else to get money with. It matters not that the trader may know the slave to be honest. He should consider that he is violating the law, and running the risk of a criminal prosecution, and likewise he may be mistaken as to the honesty of the slave.

The facility which slaves have of stealing from their owners and others, makes it the sacred duty of every well disposed and honest man to be particular in receiving or purchasing any thing from a slave without the written consent of his owner. This particularity, the other day, on the part of a townsman, saved us a piece of silver. And a few months ago this same honest sort of particularity saved us a fine shoat which had been captured by a neighbor's slave and carried into market. We understand, likewise, if some othes had been equally careful and prudent, another piece of property might have been saved, which was sold by one of our slaves. We have frequently heard the complaint in the country amongst our farmers that they could not keep their turkeys and chickens and eggs until they saw proper to sell them or eat them, that they were all stolen and carried to the village. In connection with this very evil of which we are now complaining, we remember a good joke, which happened many years ago. A negro fellow came into the village with a fat turkey gobbler, and sold it. In a few moments afterwards he stole the turkey again and sold it again. This he repeated till he had sold the gobler three times, and then he took him back home and left him where he had first stolen him from his mistress. If all roguish negroes were as shrewd and considerate, this kind of trafficking would soon be broken up.—*Southern Patriot.*

Results of Draining.—It has been remarked, that "to apply manure to undrained land, is to throw money away," an illustration of which is furnished by a statement in the Transactions of the New York State Agricultural Society, where seven acres of low wet land manured annually at the rate of 25 bushels to the acre, produced 31 bushels of oats per acre; but after being thoroughly under-drained at a cost of about $60 for the whole, the first crop of oats, without manure, was 89½ bushels per acre.—*Albany Cultivator.*

Mice and Rabbits.—The Albany Cultivator—or rather a writer in it—says that rabbits or mice may be kept from gnawing fruit trees, by taking an old newspaper, and winding a strip 20 inches wide around the tree, so as to make several thicknesses of it. For mice the strap need not be so wide. We know of newspapers which we should suppose would keep off any kind of animals, but we will not mention their names. But without reference to the particular paper used, this is a cheap, easy, and we have little doubt, feasible method

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To Farmers.—To double the crops on most farms, about all that is necessary is for our agriculturists to sell off one-half their land, and with the proceeds buy manure for the other. The larger the farm, the less a man grows to the acre.

[*Bridgeton Chronicle.*

Useful Receipts.

For the Farmer and Planter.

Sliced Lemon Pie.—Put a paste in a dish, slice one lemon, four spoonfulls of sugar and two of butter, have three layers of paste to a pie, and spice if you like. S. T. S.

Mince Pie—To 1 beef's tongue, 1 pound of raisins, double the quantity of apples, sugar and molasses; brandy, cinnamon, cloves and orange peel.

Plum Cordial.—One quart of plums, one gallon of brandy, one bottle of wine (sugar to tase); after standing six weeks pour off and bottle.

Ginger Beer.—Half pound lump sugar, half ounce cream tartar, one ounce bruised ginger, one gallon boiling water—ferment with yeast.

Beef Dobe.—Take a small joint of beef and chop it up with an equal quantity of bacon, season highly with onions, pepper, salt, cloves, one small garlic pulverized; stuff the round of beef with this mixture, cover it with slips of fat bacon, set it in a deep vessel and pour a bottle of claret over it (it is better kept a day or two). When you wish to bake it, put it in a deep oven, with a plate turned over it instead of the lid. add lard and water sufficient to cover it; par-boil slowly; the liquor that it was soaked in, must be boiled separately, dip and add to the dobe when nearly done. H. E. L.

Pendleton, S. C. Feb. 1853.

Rhubarb Preserve.—I first remove the outer skin, the stalk is then cut up into inch lengths; then put into the preserve pan, and simmered for a quarter of an hour; then equal weights of sugar are added to it. The mass is then boiled for an hour. This is necessary on account of the large quantity of water Rhubarb contains, and if a gill of the best brandy is put in during the last quarter of the hour of boiling, with about half a pound of the best marmalade, the flavor is much improved. when done, it is the color of Greengage preserve, and is quite as good flavored, with about the same consisteney.—*James Cuthill, Camberwell, Eng.*

Receipt for Making Bread.—To make the most sweet, white, light, and best bread, without the use of yeast, take a table-spoonfull of pounded *saleratus*, dissolve it in half a tea-cup full of water, rub it well through three pounds of flour, and then mix it up with *buttermilk* till it is quite soft. Place it in pans and let it bake rather slowly—about an hour and a half. A small slice of butter mingled with the dough, will be found an improvement. This mode of making bread is particularly worthy of the attention of the farmers' "gude wives." Don't fail to try it.

The vialet grows low, and covers itself with its own leaves: and yet, of all flowers, yields the most delicious and fragrant smell. Such is humility.